AMENDMENTS TO THE CLAIMS

Claims 1-12 (canceled).

Claim 13 (new): A biosensor for the detection and/or the determination of freshness biomarkers ~~in the form of~~ biogenic amines, comprising:

an electrode and

(i) a mono-enzyme system of an amine oxidase or

(ii) a bi-enzyme system of an amine oxidase and a peroxidase,

wherein said amine oxidase is a copper-containing grass pea oxidase (E.C. 1.4.3.6) and said electrode is a carbon/graphite based electrode, and whereby said amine oxidase is cross-linked to the electrode into an osmium based redox polymer.

Claim 14 (new): The biosensor according to claim 13, characterised in that the bi-enzyme system contains said copper-containing amine oxidase derived from grass pea coupled with horseradish, soybean, tobacco, sweet potato or palmtree peroxidase.

Claim 15 (new): The biosensor according to claim 14, characterised in that the peroxidase is horseradish peroxidase.

Claim 16 (new): The biosensor according to claim 13, characterised in that the osmium based redox polymer includes poly(1-vinylimidazole) complexed with [Os(4,4'-dimethyl-bi-pyridin)$_2$ Cl]$^{+/2+}$ and poly(ethyleneglycol)diglycidyl ether, as the crosslinking agent.

Claim 17 (new): The biosensor according to claim 13, characterised in that the biosensor is of Type I, Type II or Type III type of biosensor, wherein:

Type I: the mono-enzyme or the bi-enzyme system is added direct on to the electrode surface; or

Type II: the mono-enzyme or the bi-enzyme system is entrapped in the osmium based redox polymer added on the top of the electrode; or

Type III: the mono-enzyme or the bi-enzyme system and the osmium based redox polymer forms sequential coatings added on top of the electrode.

B3 CONT.

Claim 18 (new): The biosensor according to claim 17, characterised in that the biosensor of Type III is one of Type III a, Type III b, Type III c or Type III d, wherein:

Type III a: a second coating of the mono-enzyme is coating a dried layer of peroxidase and redox hydrogel; or

Type III b: a second coating of peroxidase and redox hydrogel is coating a dried layer of the mono-enzyme; or

Type III c: a second coating of the mono-enzyme entrapped in redox hydrogel is coating a dried layer of peroxidase; or

Type III d: a second coating of peroxidase is coating a dried layer of mono-enzyme entrapped in redox hydrogel.

Claim 19 (new): A biosensor according to claim 15, wherein the weight ratio of amine oxidase to horseradish peroxidase is 80:20.

Claim 20 (new): A method for the detection or determination of freshness biomarkers or of the content of biomarkers in a food sample, comprising the steps of applying said sample to the biosensor of claim 13 and detecting an electrical output from said biosensor.

Claim 21 (new): A method for the detection or determination of histamine in a body fluid, in medical diagnoses or in the treatment of a disease from a sample, comprising the steps of applying said sample to the biosensor of claim 13 and detecting an electrical output from said biosensor.

B13 CONT.

Claim 22 (new): A method for the detection or determination of histamine in a sample of microdialysates or dialysates, comprising the steps of applying said sample to the biosensor of claim 13 and detecting an electrical output from said biosensor.